

Name : \_\_\_\_\_

Score : \_\_\_\_\_

Teacher : \_\_\_\_\_

Date : \_\_\_\_\_

### Working with the Properties of Mathematics

- 1) Which Property of Multiplication is shown ?  $(2 + 3) \times 8 = 2 \times 8 + 3 \times 8$   
A. Commutative Property  
B. Distributive Property  
C. Identity Property  
D. Associative Property
- 2) Which property would you use to simplify the following expression ?  $6(y + 9)$   
A. Multiplication Property of Zero  
B. Commutative Property  
C. Distributive Property  
D. Associative Property
- 3) Which property is represented in the following statement ? If  $a = b$ , then  $a \times c = b \times c$   
A. Reflexive Property of Equality  
B. Property of Equality for Multiplication  
C. Transitive Property of Equality  
D. Symmetric Property of Equality
- 4) Which property is represented in the following statement ? If  $a = b$ , then  $a - c = b - c$   
A. Reflexive Property of Equality  
B. Symmetric Property of Equality  
C. Property of Equality for Subtraction  
D. Transitive Property of Equality
- 5) Which property of addition is used in the following ?  $(6 + 9) + 7 = 6 + (9 + 7)$   
A. Commutative Property  
B. Identity Property  
C. Associative Property  
D. Distributive Property
- 6) Which property is represented in the following statement ? If  $a = b$  and  $b = c$ , then  $a = c$ .  
A. Reflexive Property of Equality  
B. Symmetric Property of Equality  
C. Property of Equality for Addition  
D. Transitive Property of Equality
- 7) Which is an example of Identity Property of Addition ?  
A.  $3 \times 1 = 3$   
B.  $(6 + 8) + 5 = 6 + (8 + 5)$   
C.  $2 + 6 = 6 + 2$   
D.  $4 + 0 = 4$
- 8) Which Property of Addition does  $5 + 0 = 5$  illustrate ?  
A. Distributive Property  
B. Commutative Property  
C. Zero Property  
D. Identity Property
- 9) Which operation will not change the value of any nonzero number ?  
A. Adding One  
B. Dividing by Zero  
C. Multiplying by One  
D. Multiplying by Zero
- 10) Which property is represented in the following statement ? If  $a = b$ , then  $b = a$ .  
A. Property of Equality for Subtraction  
B. Reflexive Property of Equality  
C. Symmetric Property of Equality  
D. Transitive Property of Equality



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### Working with the Properties of Mathematics

- 11 ) Which of the following does not show the Commutative Property of Addition ?  
A.  $3 + x = x + 3$  B.  $a + b = b + a$  \_\_\_\_\_  
C.  $ab = ba$  D.  $3x + 4y = 4y + 3x$  \_\_\_\_\_
- 12 ) Which property is used in the following expression ?  $3(9 + 5) = 27 + 15$   
A. Distributive Property B. Associative Property of Addition \_\_\_\_\_  
C. Associative Property of Multiplication D. Commutative Property of Addition \_\_\_\_\_
- 13 ) Which property is represented in the following statement ? If  $a = a$ : anything is congruent to itself.  
A. Reflexive Property of Equality B. Transitive Property of Equality \_\_\_\_\_  
C. Symmetric Property of Equality D. Property of Equality for Division \_\_\_\_\_
- 14 ) Which equation shows the Addition Property of Zero ?  
A.  $a + 0 = a$  B.  $(a + b) + 5 = a + (5 + b)$  \_\_\_\_\_  
C.  $a(b + c) = ab + ac$  D.  $a \times 0 = 0$  \_\_\_\_\_
- 15 ) Which property is represented in the following statement ? If  $a = b$ , then  $a + c = b + c$   
A. Symmetric Property of Equality B. Property of Equality for Addition \_\_\_\_\_  
C. Transitive Property of Equality D. Reflexive Property of Equality \_\_\_\_\_
- 16 ) Which equation shows the Additive Inverse of a Number ?  
A.  $a + a = 2a$  B.  $a + -a = 0$  \_\_\_\_\_  
C.  $a \times 0 = 0$  D.  $a + 0 = a$  \_\_\_\_\_
- 17 ) Which equation shows the Multiplicative Inverse of a Number ?  
A.  $a \times 0 = 0$  B.  $a \times 1 = a$  \_\_\_\_\_  
C.  $a + -a = 0$  D.  $a \times (1/a) = 1$  \_\_\_\_\_
- 18 ) Which property is used in the following expression ?  $(6 \times 8) \times 2 = 8 \times (2 \times 6)$   
A. Distributive Property of Multiplication B. Associative Property of Multiplication \_\_\_\_\_  
C. Associative Property of Addition D. Commutative Property of Addition \_\_\_\_\_
- 19 ) Which equation shows the Commutative Property of Multiplication ?  
A.  $4 \times 6 = 6 \times 4$  B.  $5 \times 1 = 5$  \_\_\_\_\_  
C.  $2 \times 8 - 3 \times 8 = (2 - 3) \times 7$  D.  $7 \times 3 = 7 + 7 + 7$  \_\_\_\_\_
- 20 ) Which operation will not change the value of any nonzero number ?  
A. Adding One B. Dividing by Zero \_\_\_\_\_  
C. Adding Zero D. Multiplying by Zero \_\_\_\_\_

